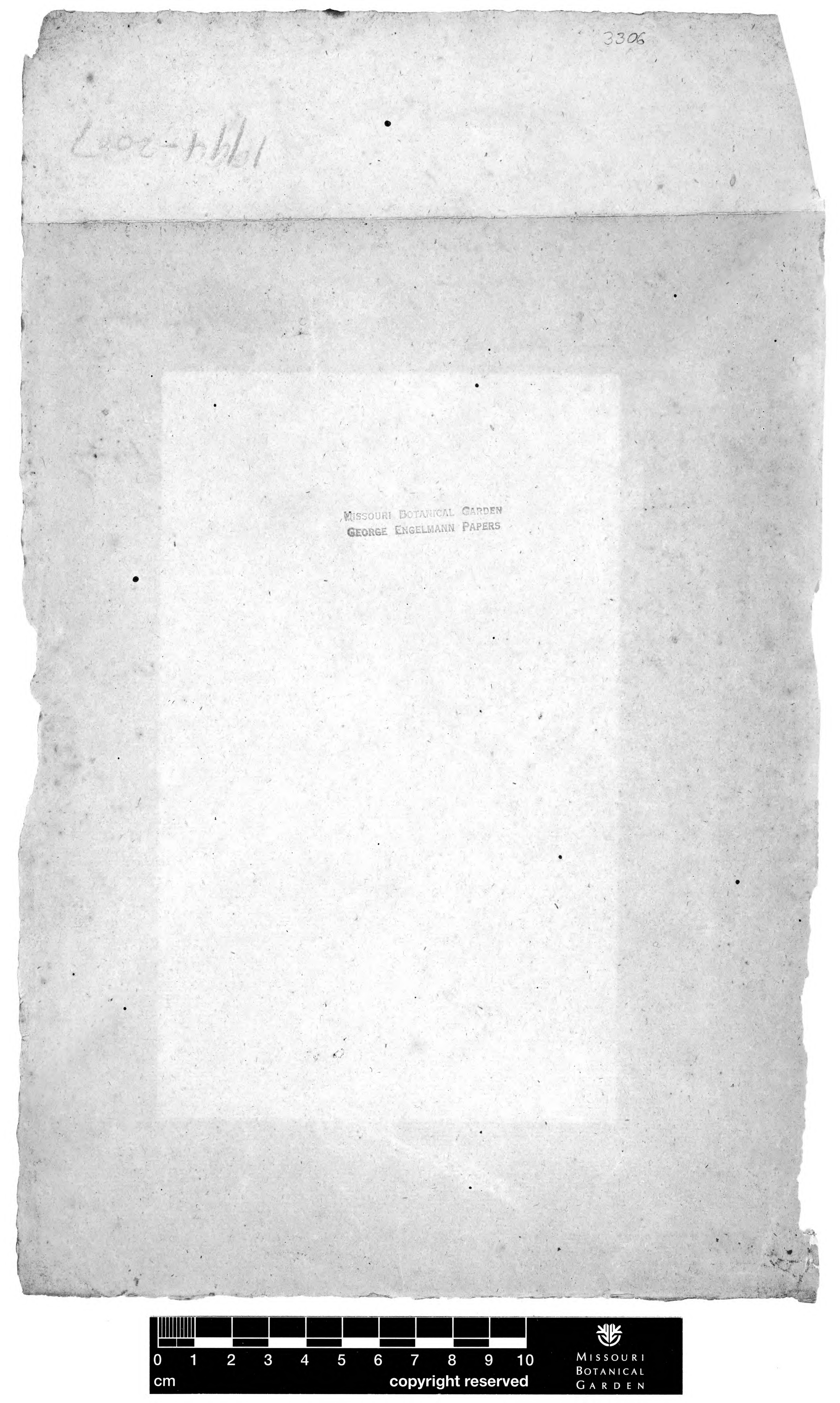


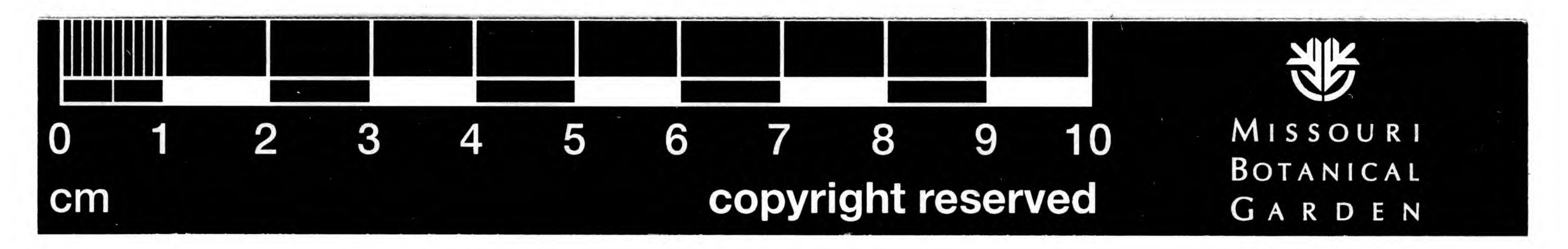
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

LAgeniz Hafster Exp 9 1871-2 Aschitt yes ratur 1862 3 evn m 9.66 Benigtela California & Nevada 1867 DE Coues Brigona 1867 De Palmon & L. E Johnson Util & Africa 1867\_2 El Jame Colombo 1870 lately & hwach That for Levenberton, work Sarry Christel L'st New Mexico 1857-52 Att Shoth, figures signlow of Function Mear Mexico 1866-47 xX Venezuele Windell's figures & Kentigury ou Estate & Classer J. Roumen, Cart. Texas by Michlengifer I Che Grynn Orgonet, Le Conti Californien 1. Gregg Mexito I Rusberry Anjona et fordes depetit MISSOURI

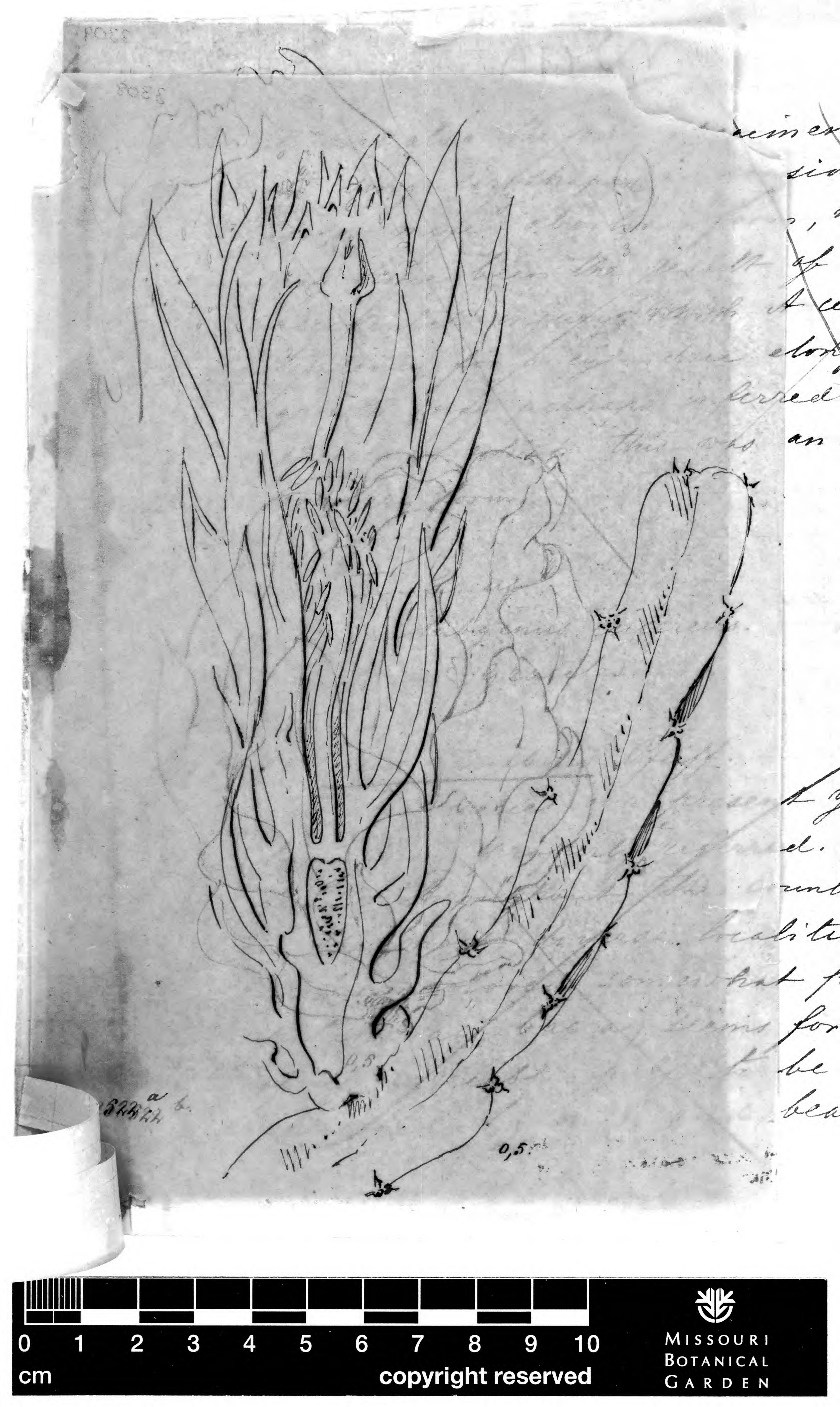
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Ma. 52h. A branch with vertical section of flower (0,5 size). 522. 1. Bacca, (0,5 size); 2, vertical section of the same, 3. Seed magnified.













it was also the only specimen of it as mere abortine form, which may have been the tesult of some accidental injury which it certain tepdeney for å cylindrie elong sted growth may perhaps inferped for the species for which this was an entraordinary lovur. III. Erens Inby enns Encereus. Egraciles. Mr 394. Cercus variabilis, Reiff. To this species our present yncutecan form may properly referred. It is found throughout the country and in the most dryferse breakities. Its crim son colorged som en hat froly gonie pritahaya for baccas deems for The Jake af its agreeable junge to be much cherished by man and beast. MISSOURI 6 BOTANICAL copyright reserved cm GARDEN

Cercier Krangulans Lin nu. Mo SIA. C. Scandens, mihr. Tandent, very rumose; joints 3 costa A from 2 to 3' long and 1 or 2" diameter, in gellowish green; libs crenate with the of tigneous margined; areolae formentosed bearing usually 3 short lackshaped y fuscous spines rising from a bulbous base; flowers appearing towards the 10 aprex of the younger joints; depals linets lanceolate fleshy; petals likewise , & the same as are the some expanded, creaming the same as are the southers left the summer of the summ tyle ascending beyond the anthers white like the stigma, which is 10 to 12 no divided, the latter before aestivation frangated briangular, bacca ovoid with a greater, cleameter of 8 more or less, clad with The expanded Scale like sepals, ust at maturity) with attimes a deep crimson: color when the sepals of the same colon are broudly margined with bright emeraldgreen; pulp of the epicarp a greenish white holding inbedded

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actacese of ginentain. numerous glistening black, Imootto deeds This species is probably introduced in the more arid northwestern part of the Veninsula, where it seems to depend on the more shade totalities af cultivaled vicinities. This plant would be a most de. sirable acquisition to hothouse = horticulture, for it not only seems to be of a much more vigorous growth then the wellknown E. grandiflorus, which it AM MM 2 9 excells in the size of its large now nocturnal and highly fragrant tion flowers but furnishes hesides a Large delsicions dessertfruit. with The present species may herhaps be referred to the Linnean E. Tream = WA gularis, which & appears to be a 1000 = Synonyme of Jacq. E. repenstream-Colon gularis and of Muniers Melocaetus er americanus, repenstrigonus flore albo arp bueta violaceo, Plum. p. 199. 200.

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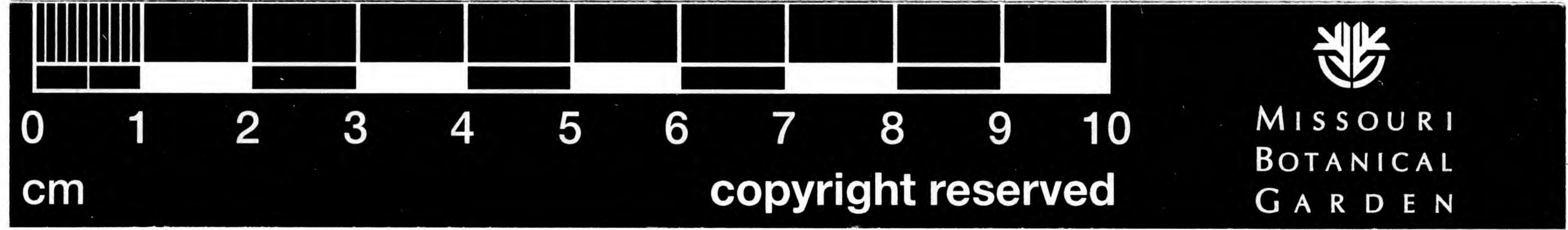
GARDEN

Mo 315. Cereus Paulicans, milio, Elimbing or trailing, branches more or less simple atten-trailing, branches more or less simple atten-traile 3-10" thick, terete striate, theolae his inte with a string tuff of whiteish hydine hair and bearing 3 very short, tackshaped lightish spines vising from a bulbons base. Hower and fruit not seen; the former is said to be cream color producing a small in different fritatique. Heaving to external aspect this species has much resemblance to the well known t. flagelliformis but is less density branched. Perhaps it may be referred to The Limean Caches paraseteens or to E. reprens, leres, strialus, musicus af Twarte l.c.p. 200. The present species however is not entirely summment. Frank every where especially on the coase Ro 326. E. platy carpiers mohis.

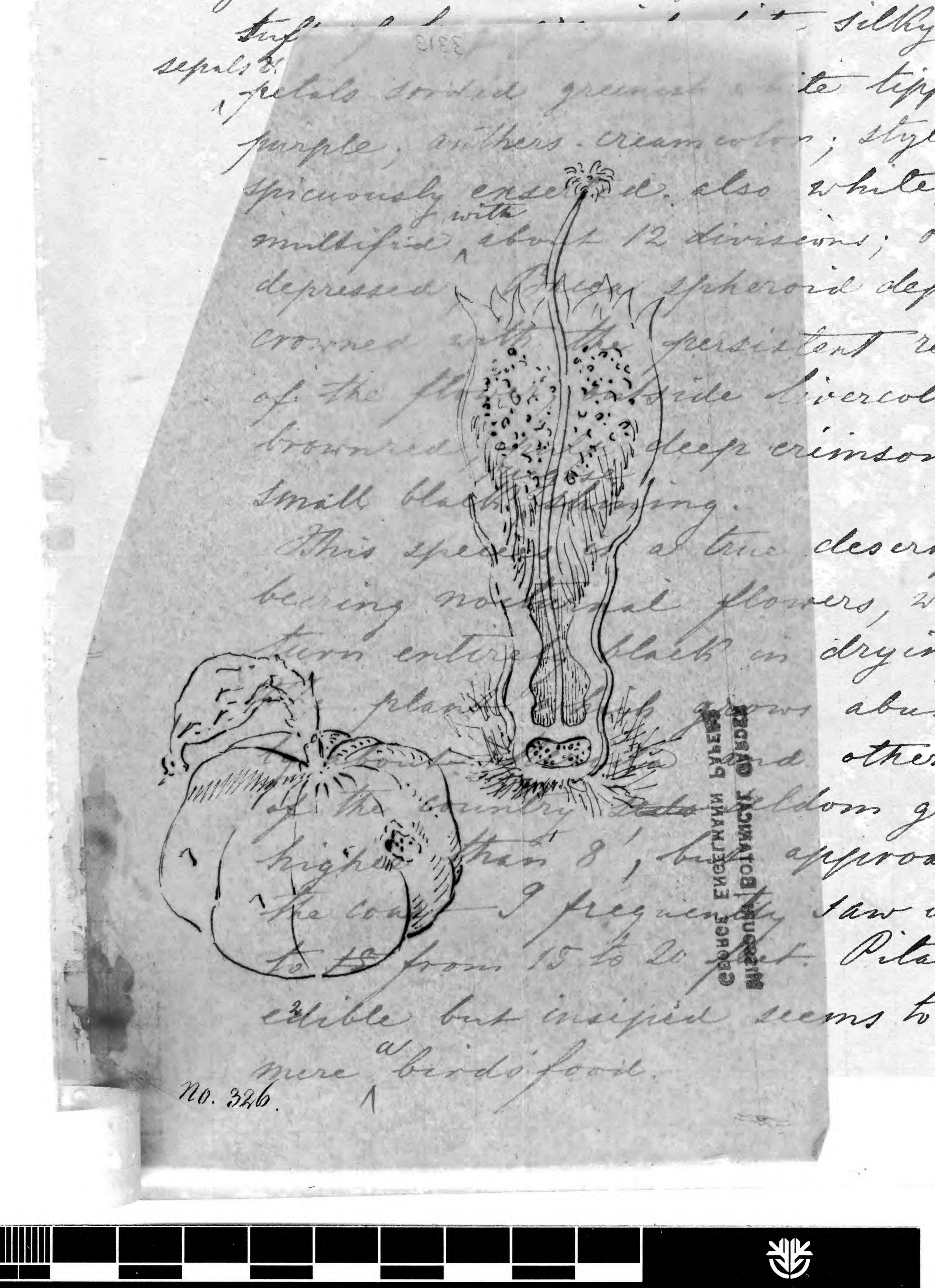
Erect, ramose branches, from 3 ho 4 thicks and from 1 to 3 long, terete & ribbed on Strinte areolne densily investing the ridges central and Tackind spin

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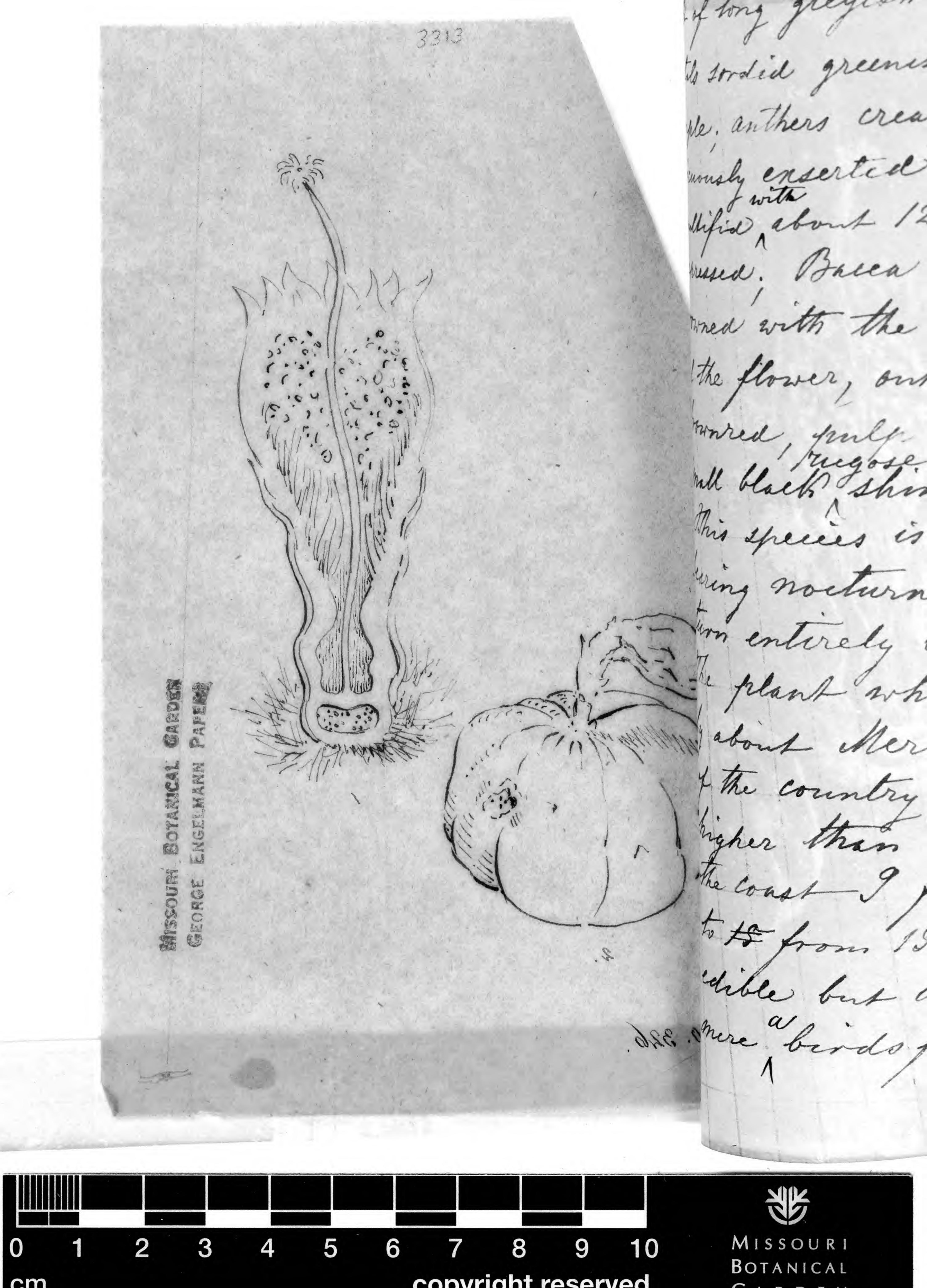
326. 1. Vertreal section of flower, 2. Bacca with persistent remains of the flower, ("nat. size).







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GARDEN

Aschot 326 C. plety carper michi : erect branch's brunch's brunch's erect, 1-3's
yerate 3-4" thirt, 9 ritbel, terke - arcolar deuse rounded, grayist britte Carti spian - suflores rem 1866 Tateral on the upper part of the younge, joints; the buds, rising from a dense sepul, to forg greyish white silly hair, sepul, to feetals sorded greenish white tipped purple, anthers creamenton; Atyle conspicuously enserted. also white, they man multified, about 12 divisions; ovary depressed. Breea spherond depressed crowned with the pursistent remains af the flower, ontside divercolor on Small black shining. This species is a true desert form bearing nocturnal flowers, which turn enterely black in drying. The plant which grows abundant by about ellerista and other parts of the country state teldom grows higher than 8, but approaching The coast I frequently saw it use to 15 from 15 to 20 fleet. Petahaya edible but insigned seems to be mere bends food.

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Leprielocerei. Mr 318. Eereus Eulul, mili. Arboreous, rumore, branches rising nearly vertical; y costate ribs crenate at last compressed; areola Somenlose, sprines 6 to 8 ladial, 1 central, Zadrals terete gregish white typped dank, apply fifty from the superior the inferiors down. Ford, central speine stoulest from 1,5 to 2 long, stranght, somewhat tranflorescence subterminal, white, 8 long from the base of the enly , deameter af covolla about 3,5. pulvilla covered by dark brownred scales and that 15th a rusty wool. Sepals and petals
Spatiale substitute furgetish, margin creamcolon Reeled greenish; ovary globaly, soules suspended from long spring funicles, anthers cream colon; style the: urceolate hvollow inside folded; shagma multipline, usually with g divisions, Bacca not seen.

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3/ Eachreese of Generalian.

The pilahaya of this species is said to be have the size of a mans first, its. eolor being red. Blooms in April. The affinities of this plant seem to be with E. peruvianus, from which it differs not only in external aspect but also in the areolation and the springs. It may perhaps be nearly related to the Cereus of Central Mexico which is called "organo".
Mes of which, I have no closer knowledge. The present species was first observed apon the sandhills on the coast of Pro-gress, where it bears known so different an aspect, that it was Thought proper, to preserve it as a deparate species until The uniformity of the botanical terior as well as those on the coast induced us to consider both as mere modifications of one species. The habitus of the littoral form is less arboreseent and its spines are larger and more nouning of which we do not will is affixed ad interior to the present species.

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Prib. II. Rolatae, Mignel. 14. apuntia. Platopuntiae; Grandes. No 310. I. meliflua, mili. Erect Joints orbicular te; areolae distant about 1/ from an other; spines from 2 to 3 deflexed, flattened corneons brown, tepals lower ones squamate upperones heartakaped: Aft, maggarageted heartshaped, onneronate, chromyellow tip and the back brownsh unbescent, thyle million urgeolate; they man multiful with from 5 to crimson, ovate or pyriforni, deeply and widely umbibicate; ovary ovate; pers carp ruch swing perforated by a number of more or less clongsted cavities, which con tans a clear hyaline sweet gam. This The fruit is cut open. The same takes place of the ovary during midday, when when the apening flowers west complete actions for which the specific name was affigeed to The present species. Homes in April. Fabitat Throughout the country and ale most in every locality. collected on the course near Progress, I sail, Elestus under number:

Mo 314. The whole plant Leems to differ form No 310 only by a obs more dry and meager aspect. The conspicuous gum = Cavitees of At O. meliflua have not been observed with this form. The hopography of its hubitat also favors a more Spreading growth, by which it is deed forms patches of considerable extent. Howevering leason with that of Mr 310, Mr. 750. Sprintin (Napralera F. Talm) Coccineblifer, L. Erect, arboreous very ramore, joints clongster from almost cylindrich to avale lanceolate. areolae unarmend or indifferently to; in: florescene on the margin as well as on the flat side of the joints; breez clavale deeply umbilicate bearing a conic flower with bright crim son whored petals and a con-Spicuous enserted elyle; thøma bright green. Blooms in April; vernacular name, Pacami it may have exaper with ontron

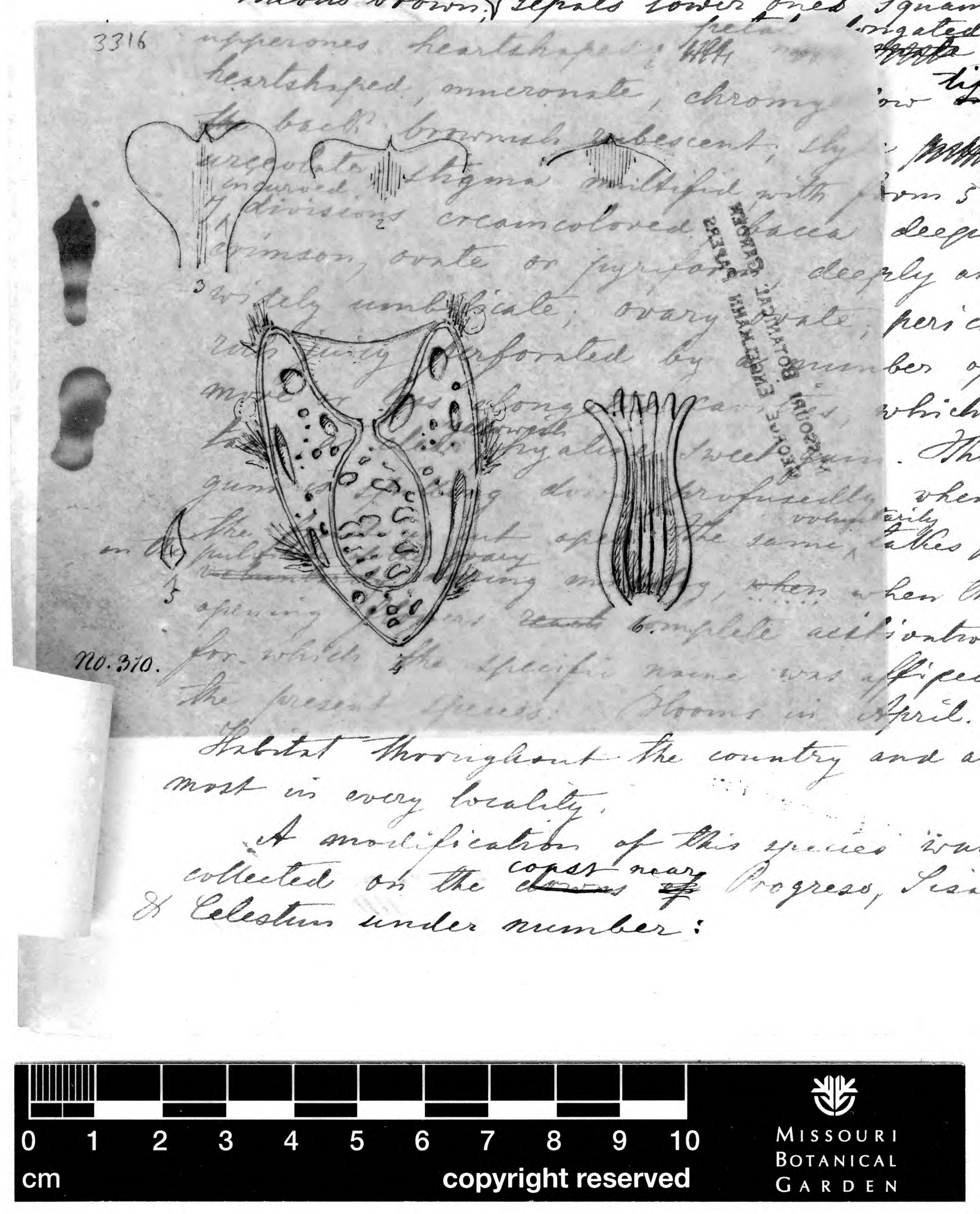
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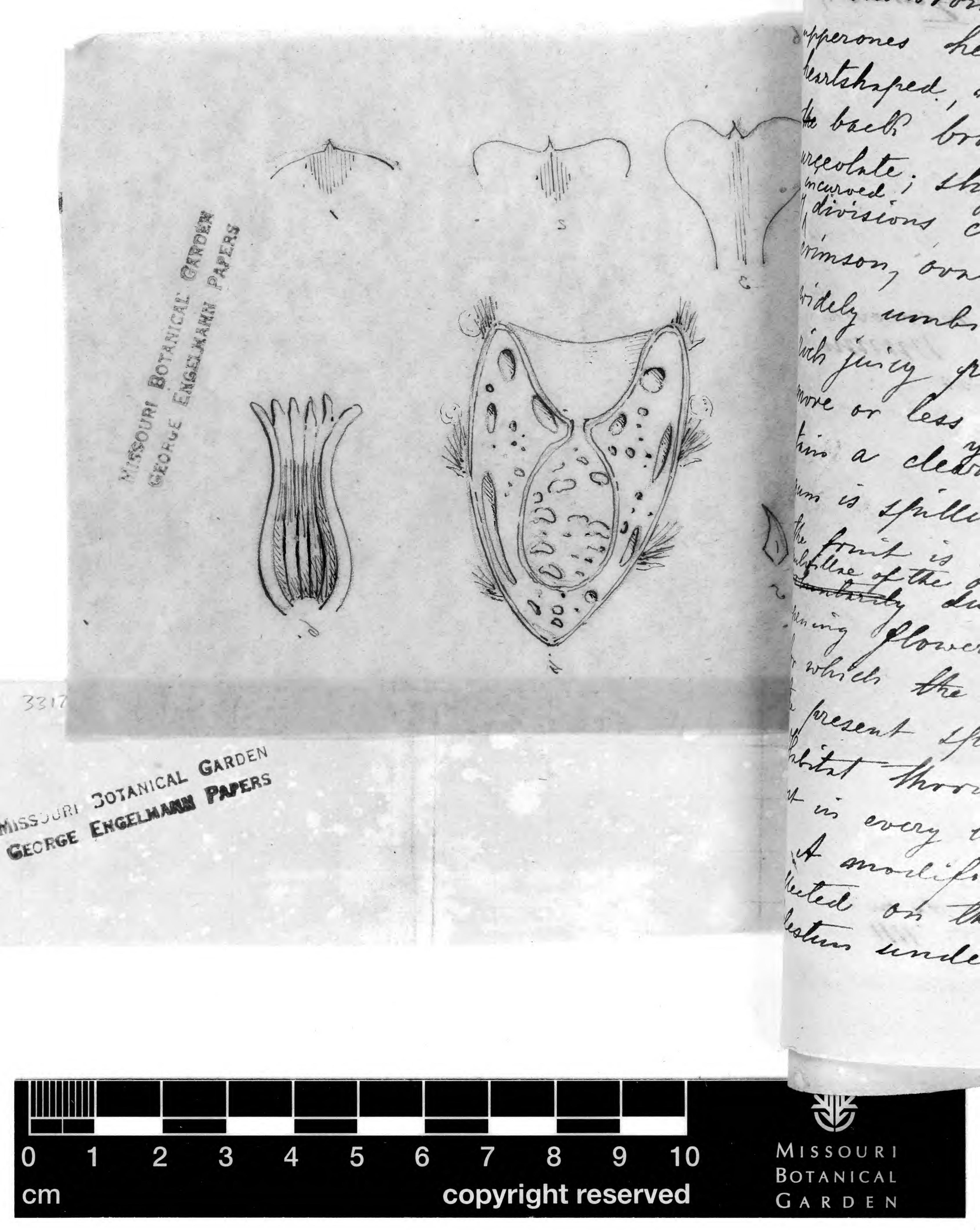
Mo 186. I. Solopalera, Valum) inaperta, mihi. Erect arboreous, very ramore but soon form any a principal candex enth coralloid fundationables enticulated branches; foints of the Similar to those of the before mentioned species but with elimensions unaller, areolae armed with from 3 to 5 short terete, brittle, lightish Spines. Infloresseene like that if the No 750. flowers do not apen even so much as those 1. Concinellisses. Anthers & Style exserted Bacen ovate or pyreform, pulvillas lomenhere armed with short spines. Horms principally in Murch & April, though specimens are Pregnently found blooming all year round. Vernreular name, Tacam,

Gen. Perestria,

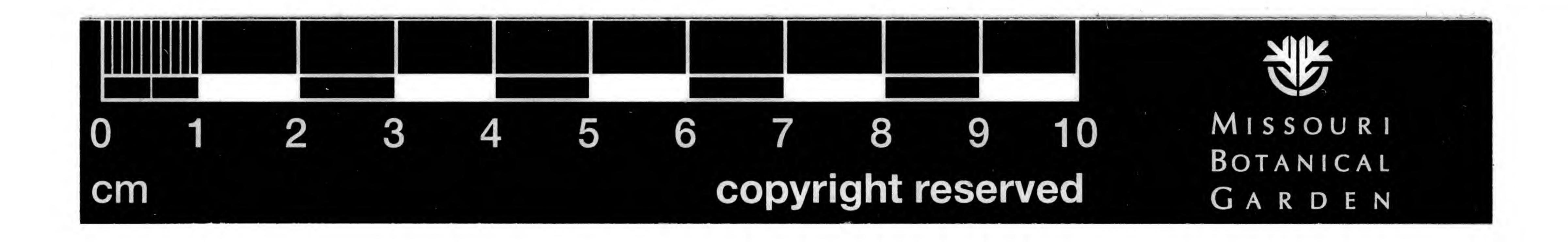
No 409. P. Maya, miki. Elimbing, very ramose, branches from 3 to 6" thick, darkgreen finally hymeons of a pale sandy color; areola circular armed with one straight black spine from 1 to 2 hong; leaves ovate or Ehomboid ovale prointed at the aprep. inflorescense terminal or subterminal;

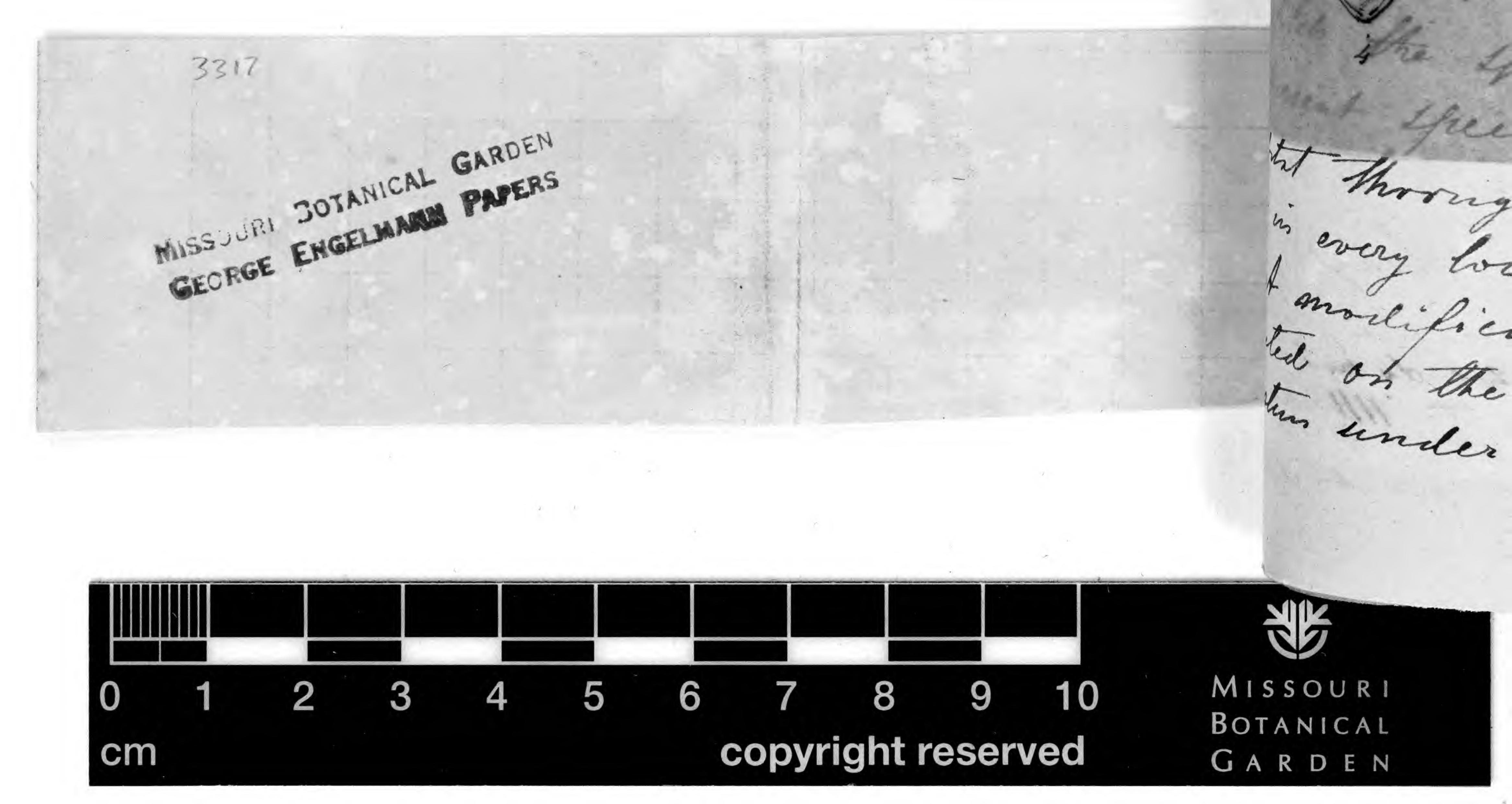
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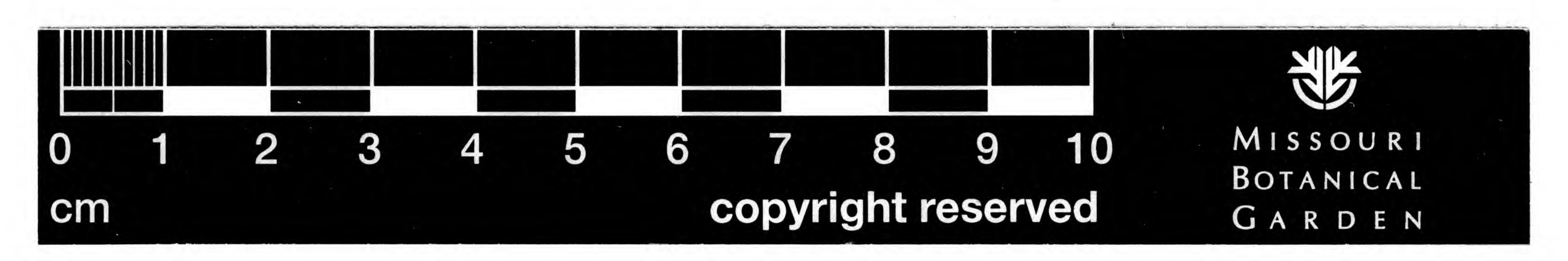


Mo.310. The Specific me 310. I buttine of aprex of sepals; 2 & 3. The same of the petals, & bacea vertically out to show the vericles of the emicarpenion, 5, thapie of scale of the pulvilla, b. Vertical sections of the

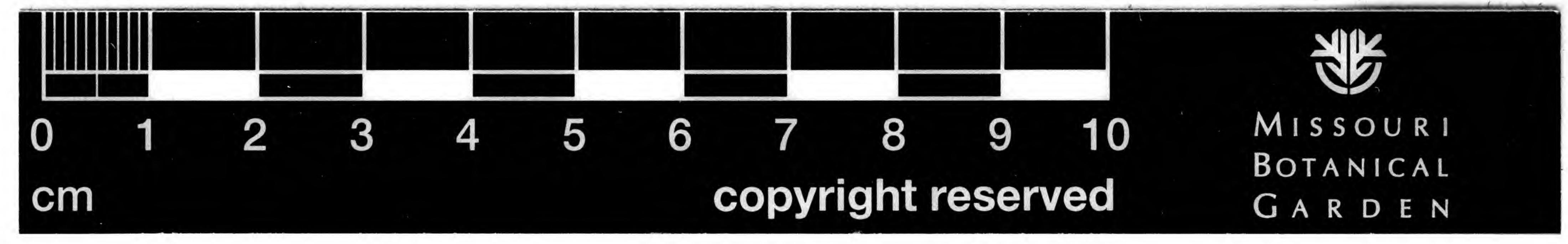




409. 182. Leaves, showing shrinkage at No2; 3, Plower= bud; 4. Flower vertically out, 5, Tyle vertically out showing its ventricose buse, b. one of the stigmatic divisions showing its reversed margins, 7, vertical section of carpel after blooming; 8, ovules with funicles; 9, thape of the woody coaled seed. Fig. from 5 to 9 magnified.







bacin clubshaped form 1 8 "long" milvellae covered by foliace tale, Inpuriors by Haves, over meghon: I hape to the fine Jellow, werted of which ped with its bue inflated, I fail fail lanceolate A Pilling on of the propose obvisions god nototh-Villa appear Con Conto myenter manne, thengy " in The The please of the entra: no 409. I then ary june ymess, for while it deems emobient, even among the Earlese, where its virtues are said to evincide with and excell ever those of certain funtire MISSOURI BOTANICAL copyright reserved cm GARDEN



4/ Cacter of Generatur. bacea clubshaped from 1 to 2" long, inferior pulvillae covered by foliaceous scales, Inperiors by real leaves; overy correspons ding in those to that of the baces, of anthers neb yellow as bong as the pretals, Style inverted clubshaped with its buse ovately inflated; thyma 4 fil lanceolate with the margin of the proppose shiving by tough heavy felt. enceptional to this gale oursionally This plant was not met by me, growing spontaneously, though nohorth-Handing ets apparently humble wants. The vernaenlar name, Bunya" in The Mayalanguage is caused by the entra: trdinary junicy ness, for while it seems to enjoy the credit of a most efficient emobient, even among the Cartere, where its virtues are said to evincide with and excell ever those of certain ofuntine

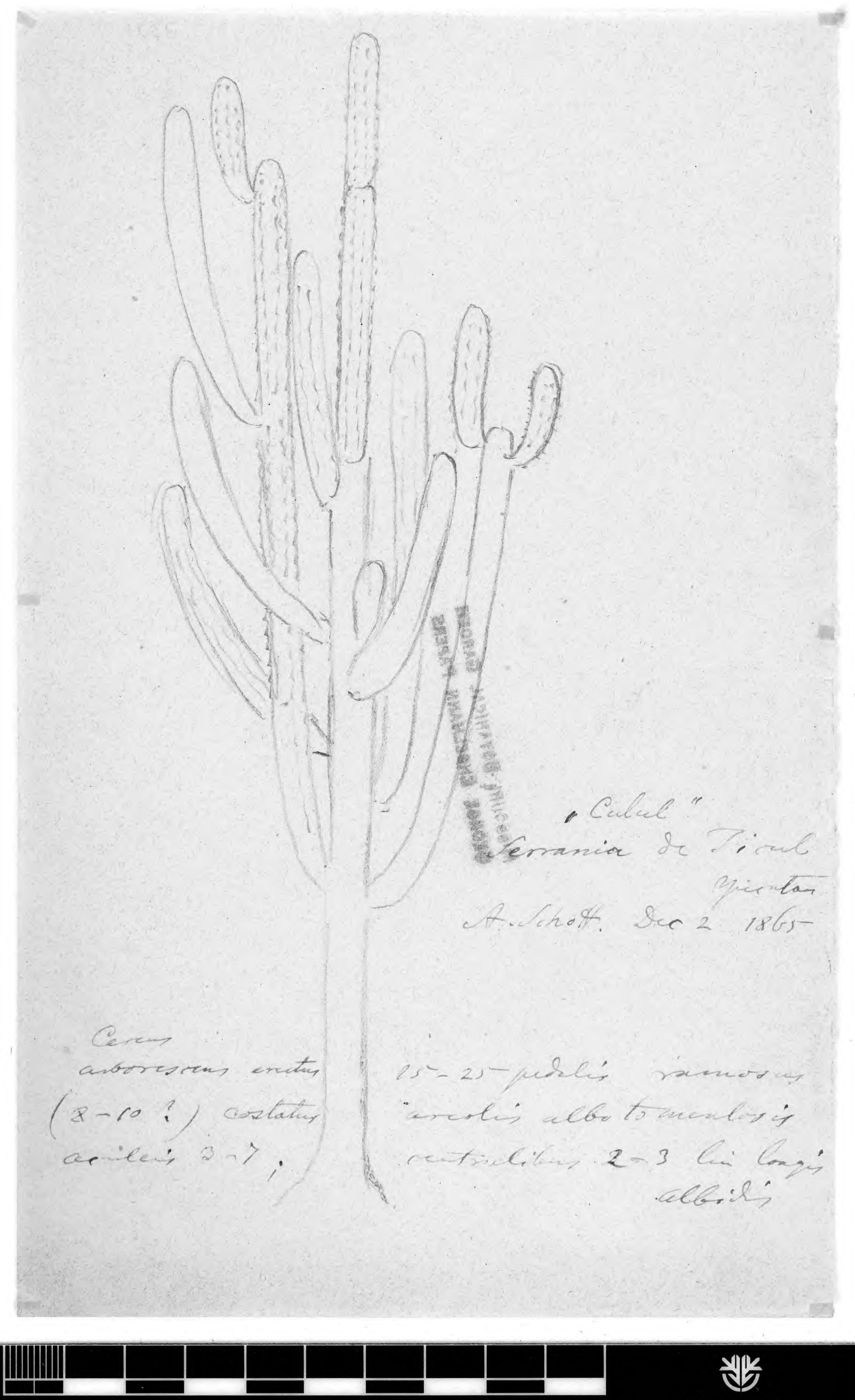
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Additional remarks. Ad. Mamillaria Heyderi? What was thought above in regard to an inclin: ation of this species for growing more cylinderical may perhaps be ascribed to the peculiar habitat of the plant. This being upon shifting sand first above highttidemork The plant at times becomes submerged almost entirely, while at other times the whole remains demided almost wholly down to the insertion of its fascicled roots. MISSOURI BOTANICAL

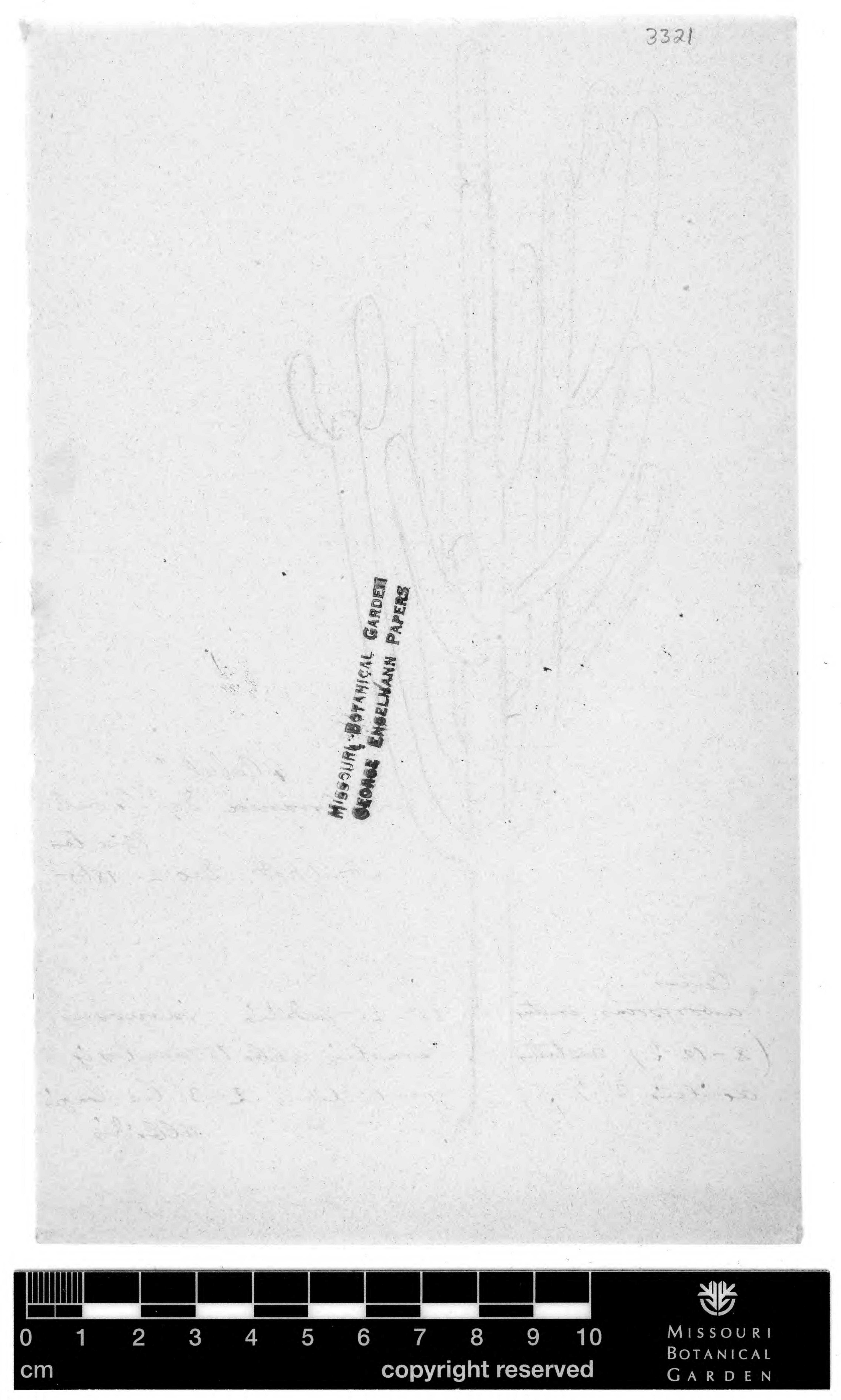
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Rei-Syll's Jeorge town S. E. 1866. Andert 21 Sp. 12. 1866.

Den Gi

Be pleased to receive enclosed an artiele peneral remarks on The Cartene of Generation " which I shought, that it may be interest ing enough for fullication in the proceedings of the Fradency of Sirence. I deferred speaking in the present paper of any: Thing, which belongs to a true Systematrial description of the species, which I preferred to so in a deparate article and if I can count upon your kind assistance in the matter. As Soon as Prof. Baird returns to Washington, which will probably he at the beginning of next month, I shall transmit to you together with my own notes and descriptions The specimens which I collected in Gucalan.

which will enable you to fully recognire perhaps most of the species if not all. If my prehininary remarks should not suit the transactions, you will please to send them back to me. Your last kind letter has been received in chie time, upon which I det to work inmediately to fish out from my Last quealon collections alla speci mens of Cartene and also the notes pertaining to them. The number of the Fransaction, (Vol. II. No 3) which you have been hund enough to tend to me through the Imilhson. Inst: has come to hand safely and I send best thankst for it. I read Sr. Parrys article on the Physiography of the Silles Peals Miss. with great interest, talling nachvantage at the same time reading of It. Wishisenins article

1, Thoughts on matter and force. I regretted much not to have Deen Ovens auount on qualernary Rocksalt deposit in Louiseann be fore I had sent to Petermans geographical fournal en gotha un article on the Saltworks af The toast of N. quealan, which by their proximily and Josetion along The sufferenters of the gulf may be in some physical relations to those of Louisiana. As Loon as I thall be able to minage it. intent to prich out from my tate collections the few Junceae, I collected! About The great bulk of the collection I did not act up to this Time partly for want of leesure and partly on account of The late German war. I hope to hear from your Soon and especially that your self and fanisly, to whom I Sind my Kindest regards may



el,



be in good health and. Spirits. Most sincerely yours List of Ironplies Mrthur Lehoto 394 Cer. vandliler godt cal 522 Cer. scandens miki - triangalanis 315 Cen saltas mih. 326 Cer. platy range mith 318 Cen Culal mih. 310 openli molligleen miki 314 Opertie veg som Com 750 Op. obserrballifen 196 Op - inaperta mili 409 Vertesoir Maya mili MISSOURI BOTAMICAL GARDEN GEORGE ENGELMANN PAPERS

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General remarks on the Eastere
of Northern Guestin.

Dr. Arthur Schott. 1866

Generaling to its geographical position and its in different hyprometrical development would have a decidedly more trapical climate like the rest of the bordands bordering the bouthside of the Mexican gulf, if it were not for its very peculiar topography in connection with its anhydrosic character, which both counteract some of The extreme features of tropical exuberance and which at the same time impart to the physiography of the Peninsula a certain ammount of aridity, which is to characteristic a feature of the subtropical regions of Northern Mexico. In Guestan The more gennine tropical growth of palms, muses and other large leaved endogens remain confined only to the immediate vicinity of water. find its confirm. ation ated not only fin the general aspect of the veget: able cover of the Peninsula but also and especially to by various families of plants, constituting the floor of Guiatan. Among these the Easterl are here not of the least interest, which we propose to thour by the following: Suring a stay of 18 months in the Western North Eastern and Central part of the Peninsula, we collected II or 12 theries of Eactere, belonging to The genera of Mamillaria, Ereus, Spuntia and Pereshia. While the first and the last of these of terens and opentia have, one of the other 4 distinct species. How the grammas. othere may be some among this number, which had not

9 10

been described before, at least not in their thought preferable to mention the various forms mades merely under their collection num: bers, to as to avoid any spureous nomenclature which would be of less then no use, as it is also intented to devote in a subsequent artiele a more strict systematic struly of the In regard to their appropriate climatic inclin = tues seem to favor shady and consequently more humid bocalities, while the rest thems all appearances to more or less to enjoyieven the highest degree of aridity, preferring bocalities, where almost all other vegetation had be come impaired and cleermaled either direitly by the hand of man or by some extraordinary egggessey natural cause, If the former we mention elos. 394, 409, 522, & 750. The first we take for granted to be Cereus variabilis, a well known speues and an old acquaintance of ours from sower Vegas and also from South America. The second is a Perestia, a climber, while the became Rowers to as for the first time We suspect that this plant must have been introduced from some other more congenial regions, at least we remember not of have ing seen it otherwise but about human knortakons, Mongh without being depren. dent on the particular care or quardian: this of man. Mo Stris also a claimber but of the genus

of terens. Its habitat being very much like that of the former whom includes one to be-lieve that it was originally not indigenous in the Most in the in the Northern part of Queatan. It is AHAM like om Perestia an object of Gucaleens horficulture, from which they occasion ally escape, No 750. is an unarmed species of fruntia, be. tonging to the elliptical clivision of the genus. It is the true cochinealfelant of the country and also only fanne under the quardean: ship of man. He probably can refer this species to the Linnean de coccinelleser. Tomewhat different in habit from These more hystoclinic species are others, which are found to be best developed in the most arid bocalities. Mey ere true desertforms, which not only telect for themselves the most forsaken burnt up rocks or stony flats, but ilse seem to follow The wake of deterrioration caused upon the Soil either immediately by the hund of man or by the agency of time in general. It is for This reason, that we find them, florishing in the greatest abundance as its number of equals or in the fullest individual de: velopment upon historical ground, where many and unmistable vestiges of bygone culti vation and civilization evidently prove the repented rotary enactments of AMATAMAN veget able growth during pash ages. Moremost among these forms of Cacteae are Mos 186 & 318. The former an of the elliptical division, arborescent and with its external appearance much like that of I. Coccin-ellifer so much so that they only can be separated

by the otocer closes bolanical scruling, The only general difference between both consisting in the spines, which which the areobse of the present species. My ammille, It is an arbonescent form which by its elongated joints and branches to = gether with its cremson flowers somewhat ap. ferraches in habitu the choyas of Northern Mexico, which The botanish arranges in The Int. division of puntine cylindricae " The closely observing Maya Indian in his language also places both these species Irde by side, calling o. cours ellifer, bacam" and the spring desertform, Tracam" The latter is found all over the country but in 33 The greatest perfection and greatest oumerseal 3 abundance upon the open sites of ancient habit atrons villages and towns, where the species is I seen to rise to a hight of from 15 to 25 teet. Its most common associate in such places is is an equally conspicuous columnar form of Gereus No 318, of the subdivision of Lepidocerei. The May as call it, Entel" a name the meaning of which title that of Pacam & Tzacam HA unthnown to us. According to its exterior the culul resem bles lerens peruvianus, L. and E. giganteus, Engels and stands perhaps between both. With the former and with the latter, that was string which wing after the brunches of menty which also much resing of the latter that was shown also much resemblance to the organo of the Mexican and may perhaps be more nearly related to this

have never examined. The culul also and almy

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invariably appears upon old townsiles and other places, where time and man tell some of their doings upon the surface of the goound. The general appearance of this thately plant the history as MANAS, with the history of the ancient aborigines. The ribs of the branches namely bear The most conspicuous marks of The cremulated redges in such a manner that The long cylindric joints or branches very much resemble the body of the sacred derpent, which as the symbol of quetralcoatly The Aztees in Mexico and of Eulirean of the Last tribes of Wollees in Generalan was advered among these notions as the deety of the air, respectively of the fertility producing meleonic waters, upon which the inhabitants of these anhydrosic countries principally depended for Their crops. It was therefore that the ancient represented this hieratic symbol not only with a crown of partitle plumes upon its head but also with a body clad in elongated feather forms a sort of a cycle, one growing out of another, by which natures feathers devene power af perpetual regeneration was represented, and for which signification This symbol or the serpent in general the fresent the mythology of the ancient nations not any of Asia and Europe, but also of a great many nations of America. and more especially so of three, which were encountered by the Anniards as great political and

civilized bodies. The apparent Usemblance of The bulul with the feathered body of the serpent AN AN ANK ANTHE Stegmently exhibited on sculpture in the ruins of Upmal, Chichen Ita Chichen-itra Izamal, Kabah, Mayapan and others of the firm cipal siles of ancient record, may have quen to they tereus particular significance as the eyes of that ancient mation, whose religious rites and cult in general have been blended with an infinite number of natural objects. It is perhaps for this reason, that we find this large levery to universally and in Luch great numbers dis: tributed, wherever architectural vestiges of a Puthless destroyed civiliration invite the traveller for collecting or studying the scattered scarcely The said serpent of the ancient be well four. ded or that not, the distribution of the former by the immediate agency of man is perhaps less doubt ful, though it does not enjoy the care of man as for instance some of the forms mentioned under the head of the more hyeloclinse their We may be more bully convinced however of The monoriginality of some other species, which from leally indiginous may never have formed so farmed from promin = felysionomy It is very probable that their present entensive distribution and propagation AMMAN AM AMMAN MANA, has been the result of the deterrivating influence of the time upon





The Peninsula. the the ef the vegetation of yourselfun, which at direct must have covered the surface of the Remarks probably similar to what can be observed at the present day upon the lastern portion of the country and also Southward to: wards latte Peter Tallowing deterrioration the cactal growth developed itself more fully and; now playing more a promissent that in localities, where it finds The necessary physical conditions. In such places an other elliptical opentia No 410 associates with Guntin Mo 186. It bears an entable crimson colored very juicy tuna (fruit). Un other desert companion of the two just mentioned is my stillen Cereus No 326. an erect species with closely set ver: treal branches, which give to it when the appearance of organ tubes, though on a Smaller scale as Strone of the bulul. Mo 326 together with No 318 Jeem to have their center of distinstration perfection upon the rocky shelves immediately on the inside of the mangrovebelt and seasife lagoons near the coast, It small they seem to reach here Their maxim um height form 18 to 25 feet. Detween these extreme desertforms and The first mentioned hyeloclinie spreies, while latter seem to seek the assistance of man and of the protection of a more shorty vegetation a few other forms hold the

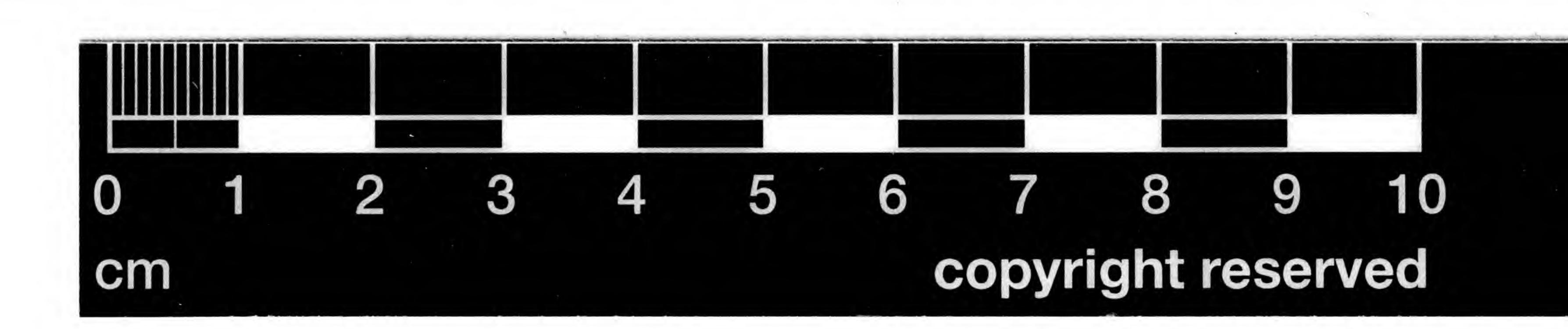
drifts and of middle. Their habitat is the MANNINGE AMANTA The clowns which after them a stamping that less avid Soil besides the saltain of the coast and The agreeous effluvine from the extensive saltwater tagoons. Here we flind No. 614, a Mamillaria, the only species whom sapprossesses Main gramma sim the grammatry. If it is not identical with M. Heyderi, Morhlenge, it must be very nearly related to it, If is most frequently associated with a stender branched climbing Cereus, No 315, which however also appears here, as does a serieus mon very much resembling the 3/8, but being of a differ. nearly related to on a modification of the bulul. The same appears, to be the case with a low straggling elliptical Spuntia, which covers large patities upon the downs along the coast. It scarcely affers any botinical characters, which would fustify a separation from the 410, of which it is probably only a variety. In their relations to man the lactere of Guentus are not without interest and the presence of some of them seems to be closely lon. nected with the history of the committee and its inhabitants. Horemost among theen Thomas (no 780 which is throught to be Guintin Coccin ellifer, L. Stiffell the White White the Miller Hith

Strant and ath amount morning and antitudes

This spelies on account at the cochinical insect must have been entenine by cultivated in some parts of the Peninsula.

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It is very probable that The whole of this quantity was not produced exclusively as the distruit of low Comprechy, but that it was only brought together here to be AMM MAN thipped. If the present dry besides the mentioned do district that of Chemas near the town of Vallacloted and the vicinity of Tirimen are recorded as the only cochineal raising tocalities. The whole which comes into Statistical cognizance at present is so insignificant that it hardly suffices for the home contund, where it is almost exclusively called for by saddlers. It is therefore that the authors of an Estadistica de Guestan chesers Alonzo M. Peon y José Maria Regil, published and 1853 in Mexico call the production of cochineal in granting only a historical record, which might possibly be levoved again, but the the chances are, as the beheve decidedly against it. The same worth see page 285 mentions a passage of Baron de Hum: boldts work on Newdpain, which gives a very 805 characteristic account of the courses, which seen to have destroyed the production of cochineal in Guentair as well as in elexico, it runs thus: 1 of starcely 40 years, when there existed en: tensive nopaleros (nopalgardens or patibles) which All were destroyed auring one night. The Indians day that this was done as a government measure in order to laise the price of the voluable article of the withintent the with the intention to want making it an exclusive monotropy for the inhabitants of Misteca. The white on the contrary assert that





the indigenous race intitled irritated and discontent about the firire, which the traders had figed upon The article had all set one concert resolved the de-Struction of not only of the insect but also of the indispensible nopalplants of It is very likely authors of the state: ment of the spanish is more correct, for Clavigers also altests, that in the 16th century the Cochineal trade was very active en Haxcala and other parts, but becoming the object of injury to the Indians, caused by The Gyramical averice of Lome governors, the Indians abon: doned the whole to enope further moles. tation and oppression. This may be as it is, the one on the other party, achieved their object, for outside of Chemax and Firewin , nowhere is the nopal. coefficient cultivated to any extent and where it that of Mittelle Orajaca. Since three times coulineal is produced not only in Europe and if we not err in coffrin about the Mediterraneau, but the demand at the present day is much less than it was at The time of Spanish rule in America. Other clying anatorial from the Eastern Henrisphere has superseed the napal parasife and and greedy Harpagon has tost for ever one of his

opportunities in tropical America.
The above cited Statistical work also refers to wild evilineal (grano silvestre) which the bygone times was produced in question in In which species theps what insects feel, is with AM AT APPAN, as very few of the spanish speatting quentecans of the present generation deem to know on care anything about the other is reason how ever to consider our Mo 186, as the foster :

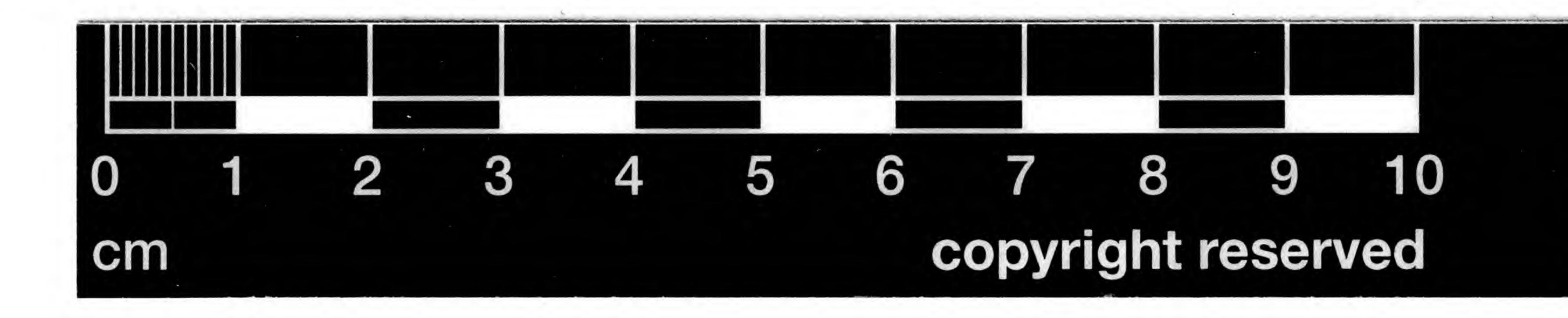
plant of the spontaneous granasite in seet. This byuntin is at all appearances along closest related to the in cultivated O. coccinelliser. It is at the same time certain, that various species of the insect must be Es exist, which not correspond not only to various species of spuntia, but even to some species of cochinealisticts from a cultivated specimen of lach florus, Engelin. but fivice these little parasites produced had hirally a red linge. On the other hand did we collect in 1853 on the Lower Ris Jos Bravo del Monte in Tejas & a grent quantity of quite good cochineal on Guntin Engelmanni. The ininbitants of that country seem to be quite up to this task in order to supply at least their home consume. In other theeies upon which we observed cochenealinseets was one growing on the upper Rio Bravo the systematic name O. phaeacantha, var.

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Morocentra Engelm. less through of far mon an amount infrortance as once the cochinealbearing operations have been but till greatly esteemed as a homeforiend of the rural propoulation is a species of Pereskin mentroned before under Mo Hog and under the vernacular name, "Trunya." othis species not viewing its broad thom boil ovale leaves much resembles the Subtraprical Species of Gruntia vaginala, Engelm. So that it may be reactily classed with the, graciliones of Cylindropuntiae, only that it is a little more stout. Jeeing however the leaves of the plant, the real nature of the genns to promptly recognized. The medical firsperties of the leaves and founds of most species of ellips the opuntise are more or iless known this will that minner They ome offer mount and applied as efficient emolients, a virtue, which our Verestin Therefore employed not only in the material medica domestica the material even regular most only in the material even regular medical through the proposition of the material even regular medical through the proposition of the material even regular medical through the state of the second of the s even regular members of the medical profession who consider it is at most valuable specificum in cases of malignant and obstinate tumours and Iwellings, the inflamatory condition of which it is ascertained, to overcome, toothingly and in a very short time. This plant then is found All offer the eggetty in almost every garden, where some safe corner is given it to enjoy en undistrurbed existence. If a branch on a leaf of this plant is brused on broken in two the colorless two but cristal clear finice is spilling down in long oily threats much like that those of the Beany leafplant ( Pedal him movey?) The name Trunya belongs to the

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Mayalanguage and closs not seen to re for exclusively to the present plant, but to various others with similar fleshy leaves and possessing like medical virtues, though being being botomically widely different botonical relation. - & Lessy monaportants in its relation to man is a climbing Cereus introduced before under Mo SIA. It seems to be of parisitie or at least precedo parasitie bubit and is propularly con-Tidered as one of the matapalos " treekillers) of the country. The of the macranthi of vegetable creation the flower of this species des would de: derve the special altention of ornamental horte enterists, for it equalls in magnificence of oppearance and interisty of its well known Cereus grandiflowed, which it more over excelled in size. It bears about April a lærge fritahaya (edible juicy cereusfruit) of an ovoid shape with a greatest draw eter of from 6 to 8 inches. The pulp in which the munerous teeds are un bedded is greenesh while of a delicious refreshing flavour, for which in market market paper the vis much tought for, selling usually at 12 cents a piece. Is the fruit is considered ## exceedingly refresh: ing, strangers are wormed by the natives, not to inchalge too freely in its use. The fruit Sonora, four Gulatean seems to contain less gum and while the former tetter lister more like syrup the present resembles somewhat





The evalerice of our confectioners. the growth of the plant enhibits a very remarkable degree of vitality which we several times had occasion teveral times had occasion of your tenes. When the change the boldest growers of your treevegetation, a giant At named alamost His a species of Friends, The Jobiage of which furnishes valuable fodder for cattle, on alcount des of which and for the sake of its shade this tree is extensively planted expresially in front of cattleyards. In habit the Alamo seems to be pseudoparasitical as it frequently takes hold of the trume of other trees, stonepilars or walls which its roots penetrate in every direction or if he had a tree on the Cast Indies the celebrated Banyan this Alamo smits hundreds of acreal wote which occasionally also take to the ground below but not in to extensive a scale as his Sacred Flindoobrother seems to do. Still the Alamo of Gunatain may on account of ell wrest irresistable vitality de considered es an american symbol of an arbor vitae, like the Danyan of the Hindoo on the tightee of the non, Toripture. But as if in disjunte for this honor our climbing Cereus is aften seen in deadly combat with the Alamo of which over we have observed several specimens throughout the tryme and the Cereus, which had entwined the tryme and the Cereus, which had entwined teafless tranches and like a host of the celebrated groupe of a accoon. This cereus seems in how as the have as other of its the how may a any other it have as other of its the formation the how ill to match it.

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BOTANICAL

GARDEN